Mapping Conventions

Wetland

Wetlands were mapped according to "Classification of Wetlands and Deepwater Habitats of the United Stated" (Cowardin et al. 1979). In this system wetlands are defined as:

> ". . . lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For the purposes of this classification wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes [wetland plants], (2) the substrate is predominantly undrained hydric soil, and (3) the substrate is nonsoil [does not support vegetation] and is saturated with water or covered by shallow water at some time during the growing season of each year."

This classification system is hierarchical where habitats are classified according to system, subsystem and class. Water regime and special modifiers can also be added. Five systems are described in this classification, two of which occur along the Yellowstone River. These two systems are: riverine (rivers, streams and their associated sand and gravel bars) and palustrine (swamps, marshes, wet meadows, fens, bogs and small, shallow ponds).

Each separate wetland type is labeled with a corresponding code or alpha-numeric (Appendix A). As users proceed through any individual wetland classification more information is provided for that particular wetland. For example, the Yellowstone River is classified as R3UBH where:

R represents the riverine *system* defined as:

> "all wetlands and deepwater habitats contained within a channel with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts in excess of 0.5%."

3 represents the upper perennial *subsystem* where:

> "The gradient is high and velocity of water is fast. There is no tidal influence and some water flows throughout the year. The substrate consists of rock, cobbles, or gravel with occasional patches of sand. The natural dissolved oxygen concentration is normally near saturation. The fauna is characteristic of running water, and there are few or no planktonic forms. The gradient is high compared with that of the Lower Perrenial Subsystem, and there is little floodplain development."